

**NON-WOVEN SHAPED FIBER MEDIA LOADED
WITH EXPANDED POLYMER MICROSPHERES**

ABSTRACT OF THE DISCLOSURE

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[037] An insulating composite material comprising expanded microcells and fiber media and methods for producing same. Microcells incorporated into the fiber media engage the surface projections and the intra-fiber and inter-fiber voids, resulting in increased microcell retention, thereby improving the characteristics of the composite material.

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